nearest contiguous source of primary care are included in the analysis for evaluating a designation request.

Issues have been raised concerning the exclusion of nurse practitioners, physician assistants, and certified nurse midwives from the calculation of primary medical care professional ratios. The basis for this exclusion entails practice regulations that vary widely from state to state in the degree of latitude offered these providers. For example, in some states these practitioners have prescriptive authority whereas in other states they do not. Physicians maintaining an unrestricted license to practice medicine can enjoy a relatively consistent practice pattern across state lines; this is not the case for other primary care professionals. They must have the mobility to transfer nationally to fill practice gaps. In addition, the lack of uniformity in state requirements for physician assistants, nurse practitioners, and certified nurse midwives currently precludes the development of an appropriate method for enumerating these providers.

The national criteria established for the two programs were based on the legislative authority and intent as discussed in the statute. The statute did not imply any expanded use of the criteria; however, there was no prohibition placed on other federal, state, or local programs concerning the use of these criteria. As a result, federal programs have been developed that use these criteria as

part of their method for allocating resources. Implementation and oversight of some of these programs, however, rest with other federal agencies.

Requests for designation are generated at the state and local levels. The responsibility for collecting data and preparing the request is borne by the applicant. In submitting a request for a designation, an applicant—usually the state health department—provides demographic data and information on the number of primary care physicians serving the area or population. The demographic data are compared with census data and other national data for the proposed service area. This information is compared with the American Medical Association's (AMA) and the American Osteopathic Association's (AOA) listings of physicians. These sources are not comprehensive listings of practicing primary care physicians; rather, they are used as guides in verifying information provided by the applicant. Discrepancies in information provided within the designation request and the AMA/AOA listings of physician are resolved between the Division of Shortage Designation and the applicant. The Division of Shortage Designation, which is in the BPHC, is charged with overseeing the designation process.

For more information on the federal shortage designation process, contact the Division of Shortage Designation at (301) 594-0816.

Commentary

Are You Being Counted?

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A re physicians being counted accurately? Physician demographic data are used in a wide variety of ways to decide what state and federal programs to pump up, leave alone, or cut back. Grants of almost unlimited variety depend on shortage designations.

In California the Office of Statewide Health Planning and Development (OSHPD), headed by David Werdegar, MD, MPH, makes recommendations to the Division of Shortage Designation, which is part of the US Department of Health and Human Services' Bureau of Primary Care. These recommendations are sometimes voted on by a commission that works closely with OSHPD.

Federally qualified health clinics and rural health clinics, both hospital-based and free-standing, depend heav-

ily on shortage designations. These clinics are compensated using cost-based accounting. Free-standing rural health clinics have a cap of about \$57 per visit. Hospital-based rural health clinics have no cap, and information contained in one hospital's disclosure report indicates that it may be getting about \$136 per visit. Federally qualified health clinics have two caps, one urban and one rural. Recently the urban caps have been around \$88 per visit, and the rural caps have been \$76. If a county has been designated a metropolitan statistical area, however, federally qualified health clinics in communities as small as less than 5,000 people have been able to get paid at the higher cap. The payment level always seems to approach the cap when there is one.

(Feehan EB: Are you being counted? West J Med 1996; 164:538-539)

One federally qualified health clinic with numerous locations has about 41 providers and starting physician salaries of \$92,000 and is able to obtain annually grants in the neighborhood of \$2 million. All this is dependent on shortage designations.

Numerous sources of data are used to determine where physicians practice. Many factors beyond a simple count of physicians enter into shortage designations. Some of these are the level of poverty, the percentage of underserved ethnic groups, high numbers in the geriatric age group, and distance to nearby sources of medical care. A facility as well as a geographic area can be designated as underserved.

The basic building blocks for counting physicians are census tracts. These are usually combined into areas called medical service study areas. The boundaries for these change from time to time, and in California, OSHPD makes recommendations, public hearings are sometimes held, and a state commission makes the final decision as to which census tracts make up particular medical service study areas.

Only primary care physicians count in deciding which areas and facilities get shortage designations. An area could theoretically have a limitless number of physician assistants, nurse practitioners, orthopedists, and general surgeons and still get designated as a shortage area. The enabling legislation for rural health clinics and federally qualified health clinics seems to have been, in part, an employment-promoting device for physician assistants and nurse practitioners. A rural health clinic or a federally qualified health clinic cannot operate without physician extenders. A physician assistant can own a free-standing rural health clinic, for example.

The State of California purchases physician demographic data. It does not purchase updates every year. The length of time between updates varies depending on who is being questioned. It would cost the state about \$1 per name for it to purchase the names of the physicians being counted, and the state chooses not to buy the names. The OSHPD reports that it keeps its data up to date by checking telephone books and other sources.

Three years ago, a local hospital applied for a facility health provider shortage area designation. I asked the State of California for a copy of the raw data, and my request was declined on the grounds that the data were proprietary. The federal government, much to its credit and in pronounced contrast to the state, did send me its raw data on request.

In 1994, I wrote and published a book about the raw data—An Analysis of Raw Data Received From the Division of Shortage Designation of the Department of Health and Human Services. I found that there could not be more errors in the data if one tried to take good data and turn it into the most egregiously erroneous data possible. The biggest error involves confusing home addresses with practice locations. In the medical service study area known as Central Merced, the incidence of that type of error was 45.5%. This error of confusing home addresses with practice addresses is not one that tends to average out, with one such error canceling out a similar but opposite error. Physicians who care for economically distressed persons seldom live in the same census tract where their practice is. For many physicians, their entire practices were missed completely.

The types of errors were so numerous that I have proposed a new Murphy's Law: The possible errors in counting where physicians practice and what kind of practice they are in are almost limitless, with some errors occurring that are nearly unimaginable.

Another error that is frequently made is that there is no attempt to count those physicians who have internal medicine subspecialty practices but who practice substantially in the field of primary care. In addition, physicians who are teaching full-time are not supposed to be counted. This rule is being ignored completely.

Kevin Grumbach, MD, of the University of California, San Francisco, did a study in which he quoted some physician demographic figures.1 In a conversation, he admitted that he had wondered about the accuracy of the raw data, but that he had not personally checked it. It is time for all of us to begin to check on the accuracy of physician demographic data. Most, but not all, sources of such data are inaccurate. The economic consequences of making decisions based on faulty data boggle the mind.

This is meant to be a wake-up call for the medical community. With the current volume of federally subsidized programs, it is time to insist that accurate physician demographic statistics be obtained and kept up to date. Commercially purchased data are not the place to start. States should not be using data that cannot be released to the public. States should know the names of the primary care providers they are trying to count.

REFERENCE

1. Grumbach KL, Bindman A, Seifer S, et al: Primary Care Resources and Preventable Hospitalizations in California. Berkeley, Calif, California Policy Sem-